

## **AMENDMENTS TO THE CLAIMS:**

This listing of the claims replaces all prior versions and listings of the claims in the present application:

### **Listing of Claims:**

Claims 1 to 12 (Canceled).

13. (Previously Presented) A transmitter for sending a signal over a wireless channel, comprising:

- a modulator for modulating the signal to produce a modulated signal that is distributed over a subcarrier;
- a predistorter for predistorting the modulated signal distributed over the subcarrier according to an amplifier transfer property in order to produce a predistorted signal;
- a mixer for converting the predistorted signal from a baseband frequency into an intermediate frequency in order to produce a converted signal;
- an amplifier for amplifying the converted signal in order to produce an amplified signal;
- an antenna for sending a first portion of the amplified signal;
- a mixer for mixing a second portion of the amplified signal down from the intermediate frequency to the baseband frequency in order to produce a mixed-down signal;
- a measurement module for comparing the mixed-down signal with the predistorted signal to determine the amplifier transfer property and for notifying the predistorter of the amplifier transfer property;
- a signal generator for generating a test signal; and
- an input element for inputting at preset times the test signal into one of the modulated signal, the predistorted signal, and the converted signal, wherein:
  - the measurement module compares the test signal in the mixed-down signal with the test signal in the one of the modulated signal, the predistorted signal, and the converted signal to obtain the amplifier transfer property.

14. (Previously Presented) The transmitter according to claim 13, wherein:

- the input element inputs the test signal into the predistorted signal at preset times, and

the measurement module compares the test signal in the mixed-down signal with the test signal in the predistorted signal to determine the amplifier transfer property.

15. (Previously Presented) The transmitter according to claim 13, wherein:

the input element inputs the test signal upstream from the predistorter, and the predistorter is loaded with a set of constant values.

16. (Previously Presented) The transmitter according to claim 13, wherein:

the modulator performs a differential phase modulation.

17. (Previously Presented) The transmitter according to claim 16, wherein:

the differential phase modulation corresponds to a differential quadrature phase shift keying.

18. (Currently Amended) ~~[[The]]~~ A transmitter according to claim 13 for sending a signal over a wireless channel, comprising:

a modulator for modulating the signal to produce a modulated signal that is distributed over a subcarrier;

a predistorter for predistorting the modulated signal distributed over the subcarrier according to an amplifier transfer property in order to produce a predistorted signal;

a mixer for converting the predistorted signal from a baseband frequency into an intermediate frequency in order to produce a converted signal;

an amplifier for amplifying the converted signal in order to produce an amplified signal;

an antenna for sending a first portion of the amplified signal;

a mixer for mixing a second portion of the amplified signal down from the intermediate frequency to the baseband frequency in order to produce a mixed-down signal;

a measurement module for comparing the mixed-down signal with the predistorted signal to determine the amplifier transfer property and for notifying the predistorter of the amplifier transfer property;

a signal generator for generating a test signal; and

an input element for inputting at preset times the test signal into one of the modulated signal, the predistorted signal, and the converted signal, wherein:

the measurement module compares the test signal in the mixed-down signal

with the test signal in the one of the modulated signal, the predistorted signal, and the converted signal to obtain the amplifier transfer property, and wherein:  
the signal generator generates the test signal having an envelope that is not dependent on time.

19. (Previously Presented) A method for sending a signal over a wireless channel, comprising the steps of:

modulating the signal to produce a modulated signal that is distributed over a subcarrier;

predistorting the modulated signal distributed over the subcarrier according to an amplifier transfer property in order to produce a predistorted signal;

converting the predistorted signal from a baseband frequency into an intermediate frequency in order to produce a converted signal;

amplifying the converted signal in order to produce an amplified signal;

sending a first portion of the amplified signal;

mixing a second portion of the amplified signal down from the intermediate frequency to the baseband frequency in order to produce a mixed-down signal;

comparing the mixed-down signal with the predistorted signal to determine the amplifier transfer property and for providing a notification of the amplifier transfer property;

generating a test signal;

inputting at preset times the test signal into one of the modulated signal, the predistorted signal, and the converted signal; and

comparing the test signal in the mixed-down signal with the test signal in the one of the modulated signal, the predistorted signal, and the converted signal to obtain the amplifier transfer property.

20. (Previously Presented) The method according to claim 19, further comprising the step of:  
inputting the test signal into the predistorted signal.

21. (Previously Presented) The method according to claim 19, further comprising the steps of:

inputting the test signal upstream from a predistorter; and

loading the predistorter with constant values.

22. (Currently Amended) ~~[[The]]~~ A method according to claim 19 for sending a signal over a wireless channel, further comprising the [[step]] steps of:

modulating the signal to produce a modulated signal that is distributed over a subcarrier;

predistorting the modulated signal distributed over the subcarrier according to an amplifier transfer property in order to produce a predistorted signal;

converting the predistorted signal from a baseband frequency into an intermediate frequency in order to produce a converted signal;

amplifying the converted signal in order to produce an amplified signal;

sending a first portion of the amplified signal;

mixing a second portion of the amplified signal down from the intermediate frequency to the baseband frequency in order to produce a mixed-down signal;

comparing the mixed-down signal with the predistorted signal to determine the amplifier transfer property and for providing a notification of the amplifier transfer property;

generating a test signal;

inputting at preset times the test signal into one of the modulated signal, the predistorted signal, and the converted signal;

comparing the test signal in the mixed-down signal with the test signal in the one of the modulated signal, the predistorted signal, and the converted signal to obtain the amplifier transfer property; and

incrementally increasing an amplitude of the test signal up to a preset size to measure a control range of an amplifier.

23. (Currently Amended) ~~[[The]]~~ A method according to claim 19 for sending a signal over a wireless channel, comprising the steps of:

modulating the signal to produce a modulated signal that is distributed over a subcarrier;

predistorting the modulated signal distributed over the subcarrier according to an amplifier transfer property in order to produce a predistorted signal;

converting the predistorted signal from a baseband frequency into an intermediate frequency in order to produce a converted signal;

amplifying the converted signal in order to produce an amplified signal;

sending a first portion of the amplified signal;

mixing a second portion of the amplified signal down from the intermediate frequency to the baseband frequency in order to produce a mixed-down signal;

comparing the mixed-down signal with the predistorted signal to determine the amplifier transfer property and for providing a notification of the amplifier transfer property;

generating a test signal;

inputting at preset times the test signal into one of the modulated signal, the predistorted signal, and the converted signal; and

comparing the test signal in the mixed-down signal with the test signal in the one of the modulated signal, the predistorted signal, and the converted signal to obtain the amplifier transfer property,

wherein[[:]] an amplitude of the test signal has a size such that control settings of an amplifier are at least fully adjusted by the test signal.

24. (Previously Presented) The method according to claim 23, further comprising the step of:  
determining the amplifier transfer property in accordance with samples of the test signal.

25. (Previously Presented) The method according to claim 22, further comprising the step of:  
inputting the test signal into a synchronization symbol.

26. (Previously Presented) The method according to claim 24, further comprising the step of:  
inputting the test signal into a synchronization symbol.

27. (New) The method according to claim 13, wherein the transmitter is configured for transmitting OFDM signals.